

WHAT IS CLAIMED IS:

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- 5 1. A method of communicating data related to the genetic data of an animal together with the health assessment data related to that animal, the data communication being between a central database processing resource and at least one remote user, the method comprising the steps of:

receiving an access request message from a remote user via a communications link;

- 10 transmitting an access enabling message to the remote user via the communications link wherein the remote user is authorized to access the database, the access enabling message permitting the remote user to access the database and access designated data from the database, the data in the database including biological laboratory test data relating to the health assessment of an animal together with the genetic data related to that animal whose health assessment is accessed;

- 15 compiling a report from the accessed database, the report including the health assessment data of an animal together with the genetic data related to that animal; and

transmitting the compiled report of the health assessment data of the animal and genetic data of that animal to the remote user.

- 20 2. The method of claim 1, comprising the steps of verifying that the access to the database is authorized.

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- 25 3. The method of claim 1, including periodically updating the database with at least one of the laboratory test data or genetic data about the animal.

4. The method of claim 1, including analyzing the health assessment data of an animal and the genetic data related to that animal, and providing the report to the remote user based on the analysis the health assessment data of the animal and the genetic data.

5. The method of claim 1, comprising the step of storing the report in the central database resource.

6. The method of claim 1, including controlling access to the central database resource, and wherein data in the database is accessible to selected multiple remote clients.

7. The method of claim 6, including the step of verifying that selected remote clients are authorized to access the database or selected data in the database.

10 *Sup 137* 8. The method of claim 1, including combining genetic data of animals with health assessment data of animals thereby to permit an analysis predicting health, disease and disorder probabilities and longevity of selected animals.

15 9. The method of claim 1, including sending an access request message from the remote user via a communications link, and the communications link is selectively a computer network, preferably including the Internet.

20 10. The method of claim 1, including receiving biological specimen results of a subject animal, storing, retrieving, comparing, analyzing the biological specimen thereby to obtain the health assessment data.

11. The method of claim 1, including encrypting the health assessment data and the genetic data.

25 12. The method of claim 1, including the steps of communicating between a remote user and the central database processing resource through a computer network, providing credit card information of the remote user prior to providing at least one of health assessment data and/or genetic data and transferring such data to the remote user after charging a credit card for such data.

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14¹³ The method of claim 1, including transferring money electronically via a telecommunications line between respective financial entities related to the remote user and to an operator of the central database, and, after transfer of money electronically, providing data from the central database to the remote user.

5 Sub A 14. A method comprising the steps of:
viewing, using a computer, both
phenotypic data for an animal, the phenotypic data including health
assessment data, and
10 genotypic data about the animal, the genotypic data including genetic data,
analyzing, using a computer, the phenotypic data and the genotypic data based on
predetermined characteristics; and
reporting the analysis of the combined phenotypic data and genotypic data.

15 15. The method of claim 14, including receiving in a database of a central database
processing resource related to the computer, data relating to the phenotype data of the selected
animal and receiving in the database of the central data processing resource, genotypic data
relating to the breed of animal and background of the animal which is health assessed.

20 16. The method of claim 14, wherein a remote user of a database including the
phenotypic data and genetic data pays for at least one of an analysis of a health assessment and
genomic mapping and genetic screening through a computer network, and including submitting
the report to a remote user after receipt of the payment.

25 17. The method of claim 14¹⁵, including submitting a health assessment to a database
related to the computer, the health assessment being selected by a remote user.

30 18. The method of claim 14¹⁵, wherein the reporting is to a remote user, the remote user
being at a site removed from a central database related to the computer and using a
communication link between the central database and the remote user, the communication link
including an Internet link.

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19. Apparatus for communicating data related to the genetic data of an animal together with health assessment data related to that animal, comprising

a computer communication network for data communication being between a central database processing resource and at least one remote user,

means for receiving an access request message from a remote user via the communications link;

means for transmitting an access enabling message to the remote user via the communications link wherein the remote user is authorized to access the database, the access enabling message permitting the remote user to access the database and access designated data from the database, the data in the database including biological laboratory test data relating to a health assessment of an animal and genetic data related to the animal whose health assessment is accessed;

means for compiling a report from the accessed database, the report including the health assessment data together with the genetic data related to that animal; and

the communication network transmitting the compiled report of the health assessment data of the animal and genetic data of that animal to the remote user.

20. The apparatus of claim 19, comprising means for verifying that the access to the database is authorized.

21. The apparatus of claim 19, including means for analyzing the health assessment data of an animal and the genetic data related to the animal, and means for providing the report to the remote user based on the analysis the health assessment data of the animal and the genetic data.

22. The apparatus of claim 19, comprising means for storing the report in the central database processing resource.

23. The apparatus of claim 19, including means for controlling access to the central database processing resource to selected multiple remote clients.

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24. The apparatus of claim 19, including means for combining genetic data of animals with health assessment data of animals, and means to permit an analysis predicting health, disease and disorder probabilities and longevity of selected animals.

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25. The apparatus of claim 19, including means of communicating between a remote user and the central database processing resource through a computer network, means for providing credit card information of the remote user prior to providing at least one of health assessment data and/or genetic data and transferring such data to the remote user after charging a credit card for such data.

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26. Apparatus comprising
a screen for monitoring, using a computer, both
phenotypic data for an animal, the phenotypic data including health
assessment data, and
genotypic data about the animal the genotypic data including genetic data,
a computer for analyzing the phenotypic data and the genotypic data based on
predetermined characteristics; and
a communications network for reporting the analysis of the combined phenotypic
data and genotypic data

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27. The apparatus of claim 26, including means for receiving in a database of a central database processing resource, data relating to the health assessment of a selected animal and receiving in the database of the central database processing resource, and genetic data relating to the breed of animal and the genetic background of the animal.

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28. The apparatus of claim 26, including means for permitting a remote user of the database to pay for an analysis of the health profile and genetic screening tests through a computer network, and including a computer communication network for submitting the report to a remote user after receipt of the payment.

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A 29. A computer-readable medium having stored thereon instructions for a computer to access the medium comprising:

instructions to access data on the medium,
a database on the medium related to genotypic data of an animal, and
a database on the medium related to the phenotypic data of the animal.

30. The medium as claimed in claim 29 wherein the data includes biological laboratory test data relating to a health assessment of a selected subject animal and genetic data related to the selected subject animal.

31. The medium of claim 30, including analysis data of the health assessment data of a selected animal and the genetic data related to the animal, and a report based on the analysis the health assessment data of the animal and the genetic data.

32. The medium of claim 30, including data related to a combination of the genetic data of animals with health assessment data of animals, and data being to permit an analysis predicting health, disease and disorder probabilities and longevity of selected animals.

33. The medium of claim 29, including data for permitting communication between a remote user and a central database processing resource through a computer network, data for permitting access through approved access codes, such data selectively including a credit card information of a user prior to providing a communication access to the database storage system of at least one of health assessment data and/or genetic data.

34. A system for reporting the analysis of the combined phenotypic data and genotypic data of an animal comprising:

a computer based communications network,
a computer at a central database processing resource provider to receive through the network, phenotypic data for an animal, the phenotypic data including physical characteristics and health assessment data, and genotypic data about the animal the genotypic data including genetic background, genomic mapping and genetic screening data,

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a screen for monitoring, using a computer, both the phenotypic data of the animal, and the genotypic data about the animal,

a computer for analyzing the phenotypic data and the genotypic data based on predetermined characteristics, and

5 a computer for receiving, through the network, the analysis.

35. The system of claim 34, including receiving in a database of a central database processing resource, data relating to the health assessment of a selected animal and receiving in the database of the central data processing resource, genetic data relating to the genomic map,
10 genetic background, and genetic screening information about the animal.

36. The system of claim 34, including permitting a remote user of the network to pay for an analysis of the health assessment and genetic data through the computer network, and including permitting the computer communications network to submit the report to the remote
15 user after receipt of the payment.

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